



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.



259648

MEMORANDUM

REPLY TO THE ATTENTION OF

DATE: SEP 26 2006

SUBJECT: **ACTION MEMORANDUM** - Request for a Time-Critical Removal Action at the Prairieland Steel Site, located in Havana, Mason County, Illinois (Site ID #A525)

FROM: Mike W. Ribordy, On-Scene Coordinator
Emergency Response Branch 2 - Section 2

TO: Richard C. Karl, Director
Superfund Division

THRU: Linda M. Nachowicz, Chief
Emergency Response Branch 2 *[Signature]*

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to \$240,600 to abate an imminent and substantial threat to public health, welfare, and to the environment at the Prairieland Steel Site, 550 South Pear Street, Mason County, Illinois (Site). This response action is necessary to mitigate the imminent and substantial threat to public health, welfare, and the environment posed by the presence of elevated levels of lead at the Site.

This time-critical removal action will include excavation, on-site treatment, and off-site disposal of contaminated soils that pose a threat to human health and the environment. In addition, a concrete pad contaminated with lead dust will be sealed or decontaminated. Other activities could include assessment of nearby areas to insure that other contaminated areas are not present and to confirm that the contaminants have not migrated off-site. These actions will require an estimated 14 on-site working days to complete. It is believed that these actions will mitigate inhalation, ingestion, and direct contact threats.

The Prairieland Steel Site is not on the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # ILD005229497

A. Physical Location and Description

The Prairieland Steel Site is located southeast of the intersection of Illinois Route 97 and Illinois Route 78 in Havana, Mason County, Illinois. The geographical coordinates for the Site are Latitude: 40.27858 N, and Longitude: -90.06658 W. The legal description would include the Site within the southwest $\frac{1}{4}$ of Section 1, Township 12 N, and Range 9W of Mason County. The area around the Site is a mixture of residential, commercial, and industrial properties. Densely populated residential areas are located south and east of the Site. Located north of the Site are various commercial and industrial properties. Some properties are located west of the Site, but the terrain is primarily dominated by a levee that parallels the Illinois River.

B. Environmental Justice Analysis

According to the Region 5 Superfund Environmental Justice Analysis for Illinois, the low income percentage is 27% or greater and the minority percentage is 32%. To meet the Environmental Justice (EJ) concern criteria, the area within one mile of the Site must have a population that is twice the state low income and/or twice the state minority percentage. That is, the area must be at least 54% low income and/or 64% minority. There are approximately 1,952 people who live within one mile of the Site. The minority population is 2% and the low income population is 55%. Therefore, this Site does meet the Region's EJ criteria based on demographics as identified in Region 5's "Interim Guidelines for Identifying and Addressing a Potential EJ Case," (June, 1998) (See Attachment 1).

C. Site Description and Background

The Site occupies approximately 3 acres and is currently composed of at least four separate parcels under private ownership. A review of Sandborn maps revealed that industrial processes have taken place on at least one parcel of the Site since approximately 1887. While operations at the former Prairieland Steel facility were discontinued in 1996, there are still two active companies at the site, Profile Screen, Inc., and Crescent Forge.

In 1996, U.S. EPA conducted a Removal Action at the Prairieland Steel facility during which 7,000 gallons of waste corrosives, 45 drums of lead slag, 7 drums of waste solids, 18 drums of waste liquids, and 25 cubic yards of non-hazardous debris were removed and disposed.

In 2000, several of the Prairieland Steel buildings were demolished by the City of Havana using Brownfield Grant money.

In 2001, the Illinois Environmental Protection Agency (Illinois EPA) conducted a site investigation of Prairieland Steel. Findings from this investigation led to the excavation of two waste pits and the determination that shallow groundwater had been impacted by Site activities.

In 2003, the Illinois EPA collected additional groundwater and soil samples. Analytical results found tetrachloroethylene at concentrations up to 71 milligrams per kilogram (mg/kg) and lead contamination at up to 1,700 mg/kg. Wipe samples taken from the concrete pad found lead at up to 16,000 micrograms per square foot ($\mu\text{g}/\text{ft}^2$).

In June 2004, a Pre-CERCLIS Screening Assessment was conducted by Illinois EPA. An X-ray fluorescence (XRF) survey was conducted at the Site. The XRF survey revealed an area of contamination with lead levels up to 67,000 parts per million (ppm) primarily in the upper two feet of soil. Analytical results from samples taken from this waste pile revealed total lead at up to 45,000 mg/kg and a concentration of 360 milligrams per liter (mg/l) pursuant to the Toxicity Characteristic Leaching Procedure (TCLP).

In July 2006, U.S. EPA conducted an assessment of the Site. Several soil samples were collected in the vicinity of the waste pile to determine the aerial extent of the lead contamination. Soil samples collected from a depth of 0-6 inches on the waste pile found total lead levels at up to 210,000 mg/kg.

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions present at the Prairieland Steel Site constitute an imminent and substantial threat to the public health, welfare, or the environment based upon the factors set forth in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as amended, 40 CFR Part 300. These factors include, but are not limited to, the following:

- 1) *Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;*

The threat of human exposure to surface soils contaminated with hazardous levels of lead is present at the Prairieland Steel Site. The Site consists of the former Prairieland Steel facility. The Site is situated in a mixed residential, commercial and industrial area. Approximately 2,000 people live within one mile of the Site.

Total lead is present in a waste pile within the former Prairieland Steel facility at concentrations up to 210,000 mg/kg and at a concentration of 360 mg/l pursuant to the TCLP. The Resource Conservation and Recovery Act (RCRA) hazardous waste standard for lead is 5.0 mg/l pursuant to the TCLP (D008 characteristic waste). Wipe samples taken from the concrete pad have found lead levels at up to 16,000 ug/ft². Lead has been designated as hazardous substances pursuant to Section 102(a) of CERCLA, 42 U.S.C. 9620(a).

U.S. EPA has concluded that there exists a potential for exposure of humans and animals to lead because employees work at the Site and because of the close proximity to residential neighborhoods. Although access to the facility portion of the Site is restricted by a fence and locked gate, access by building owners and employees to the lead waste pile and concrete pad is unrestricted. The area where the lead waste pile and concrete pad is located continues to be used for storage of old cars and other equipment and supplies increasing the likelihood of exposure to high levels of lead.

Lead exposure via inhalation and/or ingestion can have detrimental effects on almost every organ and system in the human body. Off-site migration of the documented hazardous waste would greatly increase the potential exposure to nearby human populations, animals, or the food chain.

The effects of lead exposure are more severe for young children and the developing fetus through exposure to a pregnant woman. The harmful effects of lead include premature births, lower birth weight, decreased mental ability in the infant, learning difficulties, and reduced growth in young children.

In adults, lead increases blood pressure, induces anemia as a result of the inhibition of hemoglobin synthesis, decreases reaction time, affects memory, and damages the male reproductive system. Lead is also considered by U.S. EPA to be a class B2 or

probable human carcinogen. Reference: ATSDR. 1993. Toxicological Profile for Lead. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Atlanta, GA. U.S. Department of Health and Human Services, Public Health Service.

- 2) *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;*

U.S. EPA has analytical results of soil samples collected at the Site that indicate the presence of elevated levels of lead at or near the surface. U.S. EPA has documented in certain samples total lead levels of 210,000 mg/kg, with a majority of the elevated lead levels in near surface soils. Samples collected indicate that the levels of TCLP lead present in the waste and surrounding soils exceeds the RCRA regulatory limit of 5 mg/l. Wipe samples taken from the concrete pad have found lead levels at up to 16,000 ug/ft².

There are no controls in place to prevent migration of these hazardous substances. Numerous human receptors are located within one mile of the Site. Workers and trespassers may get lead contaminated soils on their shoes or boots because the surficial soils are contaminated with lead. The lead contaminated shoes or boots may deposit the contaminated soils in neighboring residences or workplaces.

- 3) *Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;*

In the summer months, this area of Illinois is subject to periods of arid weather and moderately high temperatures. These warm, dry periods can cause soils at the Site to become dust-like. These conditions increase the likelihood that lead-contaminated soils and dust will be picked-up by winds, migrate off-site, and impact the surrounding properties.

Large rain events, coupled with inadequate vegetative cover, could result in the off-site migration of the lead-contaminated surface soils and dust from the Site.

- 4) *The availability of other appropriate Federal or State response mechanisms to respond to the release;*

In a letter dated June 27, 2005, the Illinois EPA formally requested U.S. EPA's assistance in conducting a time-critical removal assessment and possible removal action at the Prairieland Steel Site. U.S. EPA understands that State and local agencies do not have the resources to conduct a response action as described herein.

IV. ENDANGERMENT DETERMINATION

The Prairieland Steel Site contains elevated concentrations of lead in surface and subsurface soils. Lead is present in a waste pile and on a concrete pad at concentrations that U.S. EPA has determined pose a threat to human health and the environment. Until addressed, the lead contaminated soils and concrete pad present at the Site pose potential inhalation, ingestion and direct contact hazards to surrounding workers and trespassers. In addition, contaminated soils may migrate and impact surrounding areas, including nearby residential areas.

Given the conditions at the Site, the nature of the suspected hazardous substances on Site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health or welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1) Proposed action description

The On-Scene Coordinator (OSC) proposes the following actions to mitigate threats posed by the presence of hazardous substances at the Prairieland Steel Site:

- a) Prepare a Site work plan that describes the tasks to be performed and includes a time-line for the performance of the tasks.
- b) Develop and implement a site-specific Health and Safety Plan addressing continuous monitoring of air borne contaminants and dust control measures.

- c) Implement Site security measures as necessary to prevent access to contaminated areas.
- d) Confirm and characterize the vertical and horizontal extent of lead contaminated soil at the Site, including any contamination that has migrated to the rest of the property and Site contamination on adjacent properties (stemming from historic activities conducted at the Site).
- e) Excavate, treat, and properly dispose of (in accordance with U.S. EPA's Off-Site Rule (40 CFR § 300.440)) approximately 1,000 tons of lead-contaminated soils. The Site will have a clean-up level of 800 mg/kg for total lead¹, which is the recommended lead screening level for a commercial/industrial exposure scenario by the U.S. EPA's Technical Review Workgroup for Lead.
- f) Seal or decontaminate the concrete pad which has elevated levels of lead dust.
- g) Conduct confirmatory soil screening using an XRF and collect samples for laboratory analysis to confirm that the clean-up goal [lead at 800 mg/kg] has been achieved.
- h) Properly address any excavated areas by backfilling with clean equivalent materials (backfill), and restoring excavated areas.
- i) Properly address any additional hazardous waste and/or materials identified during the removal action.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances or contaminants at the Site which may pose an imminent and substantial endangerment to public health and safety, and to the environment. These response actions do not impose a burden on the affected property disproportionate to that which the property contributes to the conditions being assessed.

¹ U.S. EPA. Adult Lead Methodology Frequently Asked Questions. Washington, DC, U.S. EPA Technical Review Workgroup for Lead (TRW). <http://www.epa.gov/superfund/programs/lead/almfaq.htm>.

The removal action will be taken in a manner not inconsistent with the NCP. The OSC has begun planning for provisions of post-removal site control, consistent with the provisions of Section 300.415 of the NCP.

2) Contribution to remedial performance

The proposed action will not impede future responses based upon available information. The Prairieland Steel Site is a non-NPL site for which remedial action has not been planned to date. The proposed removal action will address all threats meeting the NCP Section 300.415(b)(2) removal criteria as identified in Section III of this Action Memorandum.

3) Applicable or relevant and appropriate requirements (ARARS)

All applicable or relevant and appropriate requirements (ARARS) will be complied with to the extent practicable. On August 24, 2006, a letter was sent to Mr. Bruce Everetts with the Illinois EPA, requesting Illinois EPA to identify State ARARS. A response dated August 31, 2006, was received from Illinois EPA. Federal ARARS for the Site will primarily include RCRA regulations.

4) Project schedule

The removal action will involve the excavation and stabilization of the area identified as containing lead contamination. The stabilized waste will be staged and sampled to determine if the material is non-hazardous. If the stabilized waste is confirmed by analytical data to be non-hazardous, then it will be disposed of off-site at a Subtitle D landfill. The project is estimated to be completed in 14 days with 10 hour work days.

B. Estimated Costs

The estimated costs to complete the above actions are summarized below. Detailed Contractor costs are presented in Attachment 2.

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:

Regional Removal Allowance Costs:

Total Cleanup Contractor Costs \$ 183,427
(This cost category includes estimates for ERRS and subcontractors. 15% contingency included.)

Other Extramural Costs Not Funded from the Regional Allowance:

Total START, including multiplier costs \$ 25,790
Subtotal, Extramural Costs \$ 209,217
Extramural Costs Contingency \$ 31,383
(15% of Subtotal, Extramural Costs)

TOTAL, REMOVAL ACTION PROJECT CEILING \$ 240,600

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed, or no action, will increase the potential of the exposure to lead and threaten the adjacent population and the environment. No action will also allow for the potential off-site migration of lead during rain and wind events, and for continued direct contact potential for workers and the surrounding community.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this Site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

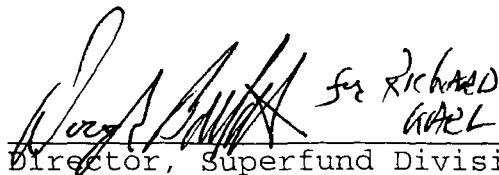
The total U.S. EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$419,836².

$$(\$240,600 + \$30,000) + (55.15\% \times \$270,600) = \$419,836$$

IX. RECOMMENDATION

This decision document represents the selected removal action for the Prairieland Steel Site located in Havana, Mason County, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site (Attachment 3).

Conditions at the Site continue to meet the NCP, Section 300.415 (b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. The total estimated project ceiling, if approved will be \$240,600. Of this, an estimated \$183,427 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVE:  for RICHARD WAELE DATE: 9/26/06
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

Enforcement Addendum

Attachments

1. Region 5 EJ Analysis
2. Detailed Cleanup Contractor Cost Estimate/Independent Government Cost Estimate
3. Administrative Record Index

² Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgement interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States's right to cost recovery.

cc: D. Chung, U.S. EPA, 5202-G
M. Chezik, U.S. Department of the Interior, w/o **Enf.**
Addendum
B. Everetts, Illinois EPA, w/o **Enf. Addendum**

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NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

(REDACTED 1 PAGE)

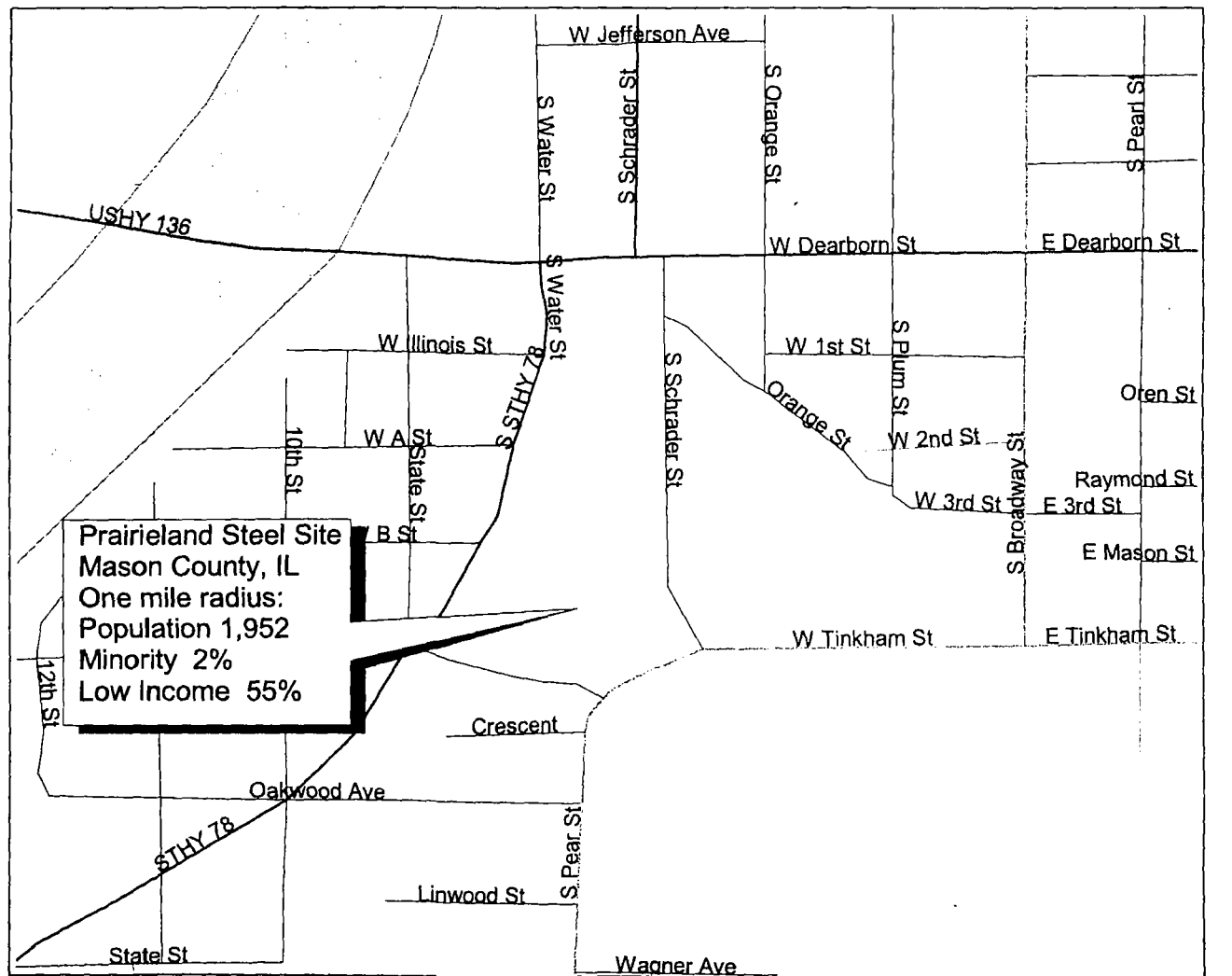
ATTACHMENT 1

REGION 5 EJ ANALYSIS

Region 5 Superfund EJ Analysis

Prairieland Steel Site

Harvard, IL



Prairieland Steel Site
Mason County, IL
One mile radius:
Population 1,952
Minority 2%
Low Income 55%

State of Illinois averages:
Minority: 32%
Low Income: 27%

U.S. EPA Region 5
Environmental Justice Case Criteria
for State of Illinois

Minority: 64% or greater
Low Income: 54% or greater

0 0.2 0.4 0.6 0.8 Miles



Date of Map: 6/14/06

Source of Map: Census 2000 Database/
ArcView 3.0

ATTACHMENT 2

DETAILED CLEANUP CONTRACTOR COST ESTIMATE

**Prairieland Steel Site
Havana, Mason County, Illinois
September, 2006**

The estimated cleanup contractor costs necessary to complete the removal action at the Site are as follows:

Personnel	\$ 32,442
Equipment	\$ 22,060
Other Costs (analytical, etc.)	\$ 40,000
Transportation and Disposal	\$ 65,000
Total	<u>\$159,502</u>

INDEPENDENT GOVERNMENT CLEANUP CONTRACTOR ESTIMATE
PRAIRIELAND STEEL SITE
HAVANA, MASON COUNTY, INDIANA

SEPTEMBER 2006

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

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U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION



ADMINISTRATIVE RECORD
FOR
PRAIRIELAND STEEL SITE
HAVANA, ILLINOIS

ORIGINAL
APRIL 30, 1996

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	00/00/00	Illinois EPA		CERCLA Preliminary Assessment Report: Prairieland Steel (Document Incorporated by Reference Available for Viewing at U.S. EPA, Region 5, Superfund Records Center	2
2	11/10/95	Everetts, B. Illinois EPA	Vega, S. U.S. EPA	Letter re: Request for Removal Assistance	2
3	12/18/95	Illinois EPA Bureau of Land/Division of Remedial Management		RPMS Inspection Document DNR to Test for Lethal	3
4	03/18/96	Ecology & Environment, Inc	U.S. EPA	Site Assessment Report for Prairieland Steel Company, Havana, IL	23
5	05/13/96	Vega, S. U.S. EPA	Muno, W. U.S. EPA	Action Memorandum: Request for a Time Critical Removal Action At the Prairieland Steel Site, Havana, IL	10

UPDATE #1
September 13, 2006

1	07/27/04	Keehner, V. Illinois EPA	Bureau of Land File	Sampling Results w/ cover letter attached	100
2	10/18/04	Illinois EPA	U.S. EPA	Pre-CERCLIS (PCS) Screening Assessment of the Havana Right of Way, Havana, IL	23
3	06/27/05	Everetts, B. Illinois EPA	Bolen, B. U.S. EPA	Letter Requesting the U.S. EPA Assign an On-Scene Coordinator at the Havana Right of Way Site, Havana, IL w/attachments	8

4	08/03/06	STAT Analysis Corporation	U.S. EPA	Work Order Sample Summary	17
5	00/00/00	Ribordy, M U.S. EPA	Karl, R. U.S. EPA	Action Memorandum - Request for a Time-Critical Removal Action at the Prairieland Steel Site (PENDING)	19

ENFORCEMENT ADDENDUM

**PRAIRIELAND STEEL COMPANY SITE
HAVANA, ILLINOIS**

SEPTEMBER 2006

(REDACTED 1 PAGE)

**ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY**